

Patent Claims

1. Use of the gangliosides asialo-G_{M1} (AG_{M1}) and/or G_{M1} and of substances which simulate the carbohydrate moiety of these gangliosides with regard to binding to anti-AG_{M1} antibodies and/or anti-G_{M1} antibodies, for the preparation of an agent for binding or blocking anti-AG_{M1} antibodies and/or anti-G_{M1} antibodies which bind to natural killer cells (NKC), for administration to patients at risk of sepsis and patients suffering from sepsis, in whom such antibodies were detected, for the prevention, inhibition and treatment of sepsis.
2. Use of the gangliosides AG_{M1} and/or G_{M1} and of substances which simulate the carbohydrate moiety of these gangliosides with regard to binding to anti-AG_{M1} antibodies and/or anti-G_{M1} antibodies, for the preparation of agents for blocking antigen-presenting cells or for producing T-cell anergy in patients at risk of sepsis.
3. Use of the gangliosides AG_{M1} and/or G_{M1} and of substances which simulate the carbohydrate moiety of these gangliosides with regard to binding to anti-G_{M1} antibodies and/or anti-AG_{M1} antibodies, for the preparation of an affinity material for the extracorporeal removal of anti-AG_{M1} antibodies and/or anti-G_{M1} antibodies which bind to natural killer cells from the blood circulation of a patient at risk of sepsis or a patient suffering from sepsis.

4. Use according to any of Claims 1 to 3, characterized in that the substances which simulate the carbohydrate moiety of these gangliosides with regard to binding to anti-AG_{M1} antibodies and/or anti-G_{M1} antibodies are characterized in that they are detectable with the aid of a screening method in which a substance to be tested is added to a serum having a high ganglioside antibody titre, the binding behaviour of the antibodies from the sample to the specific binding partners is then determined and the binding behaviour which is reduced compared with the substance-free sample is correlated with ganglioside simulation.
5. Use according to Claim 2 for the preparation of an agent for blocking antigen-presenting cells or for producing T-cell anergy for administration by injection or for oral administration.
6. Agent for the prevention and treatment of sepsis, which, in addition to pharmaceutically acceptable excipients, contains active constituents which bind to AG_{M1} and/or G_{M1} antibodies in a manner such that the binding of these antibodies to natural killer cells (NKC) is completely or partly prevented.